

The Influence of Work Environment and Workload on Employee Performance (A Study on Generation Z Employees)

Lulu Setiawati

Matana University, Indonesia

lulu.setiawati@matanauniversity.ac.id

Wijil Nugroho

Matana University, Indonesia

wijil.nugroho@matanauniversity.ac.id

Eky Arya Sisna

Matana University, Indonesia

eky.arya@student.matanauniversity.ac.id

Elvinna Rynne Wijaya

Matana University, Indonesia

elvinna.wijaya@student.matanauniversity.ac.id

Abstract

This abstract discusses the crucial role of human resources in achieving organizational goals. The study by Langi et al. (2022) highlights the importance of human resource management, particularly in addressing the challenges of Generation Z, which currently dominates the workforce in Indonesia. Employee performance is influenced by workload in accordance with their respective positions, as well as by a supportive work environment. This research emphasizes the necessity of effective human resources to achieve organizational objectives, especially by considering the challenges faced by Generation Z in the workplace. Based on the hypothesis testing, the t-test for the work environment (X1) resulted in a value of $(4.432) > (1.66023)$, indicating that the work environment has a significant positive effect on employee performance. Meanwhile, the workload variable produced a value of $(-3.723) > (-1.66023)$, which signifies that workload has a significant negative effect on employee performance. Furthermore, the F-test result of $(13.23 > 3.09)$ demonstrates that both the work environment and workload simultaneously have a significant positive effect on improving employee performance.

Keywords: *Work Environment, Workload, Employee Performance, Generation Z.*

1. Introduction

Human resources play an essential role within a company in enhancing productivity and achieving the organization's vision and mission. According to Langi et al. (2022), human resources are vital in driving productivity to realize the company's goals and objectives. Therefore, management must maximize the potential of its existing resources, as human resources serve as the driving force behind every organizational activity.

In recent years, the workforce has been increasingly filled with new faces namely Generation Z, often referred to as Gen Z. In Indonesia, Gen Z represents the largest demographic group, comprising approximately 74.9 million people, or around 27.9% of the total population. Generation Z includes individuals born between the mid-1990s and 2012 (Christiani & Ikasari, 2020; Hastini et al., 2020; Permana, 2021). With their large presence in the labor market, Generation Z has become a significant portion of employees across various companies.

One of the most crucial assets within an organization is human resources. Human resources serve as a key element in driving multiple sectors of a company. Employees influence various aspects of performance and productivity. Performance can be defined as the degree of achievement of an employee over a specific period while carrying out assigned responsibilities, in accordance with established standards, objectives, or agreed-upon criteria. In line with Sembiring (2020), performance reflects the outcomes achieved by employees both in quality and quantity when completing their assigned tasks.

Employees, in the process of performing their duties, are assigned workloads that align with their capabilities. As stated by Meutia and Narpati (2021), workload refers to the tasks assigned to employees, which are generally adjusted to their rank or job position. Each employee is expected to complete these tasks within a specific time frame. This aligns with Wardhana's (2023) findings, which explain that workload is the accumulation of tasks assigned to an employee within a given period to be completed.

Performance is also closely related to the working environment employees experience. When the work environment is well managed, it fosters a sense of comfort, thereby enhancing employee productivity. Consistent with the findings of Mudrika et al. (2021), a conducive work environment has been shown to positively influence employee performance. In other words, a comfortable workplace equipped with adequate facilities and supportive conditions can increase motivation and optimize employees' performance in fulfilling their responsibilities effectively.

2. Literature Review

Work Environment

The work environment refers to the conditions or situations within the workplace that are capable of creating a sense of safety, comfort, and calmness for employees, thereby influencing the way they complete their tasks. An optimal work environment reduces fatigue and monotony, whereas a less supportive environment has the potential to trigger boredom, which in turn may lower job satisfaction and employee performance.

As expressed by Yoyano, Indri Vani, and Muttaqin (2023), the work environment refers to the place or area that becomes the center of employees' professional activities. This environment is not only influenced by physical aspects but also includes psychological and administrative conditions, which both directly and indirectly determine the level of happiness and effectiveness of employee performance.

According to Sedarmayanti, as cited in the study of Yuliantini and Santoso (2020), indicators of the work environment are divided into two main categories: physical and non-physical. The physical dimension includes elements such as adequate lighting, the availability of work facilities, proper air circulation, humidity levels, noise in the workplace, and room color schemes. Meanwhile, the non-physical dimension relates to factors such as leadership support, cooperation among employees, and the presence of flexible and harmonious working relationships.

Workload

Workload refers to the amount of work that an individual is required to complete within a specified period of time (Wardhana, 2023). Every company needs to pay attention to workload, as it is an aspect that can improve employee performance (Fauzi, Wulandari, et al., 2022). According to Hermawan (2022), one important indicator of workload is continuous improvement in work, which describes the approach by which individuals or teams continuously strive to enhance efficiency, productivity, and quality. This involves identifying, evaluating, and refining work processes in order to achieve optimal outcomes. Another indicator is the ability to complete challenging tasks, which reflects the commitment of individuals or organizations to handle and resolve complex problems efficiently, while at the same time regarding such challenges as opportunities for growth, learning, and meaningful achievement.

In addition, workload can also be understood through the targets that are expected to be achieved, which refer to specific goals set for individuals, teams, or organizations in carrying out their tasks. These targets highlight the importance of having clear and attainable performance objectives as part of organizational effectiveness. Workload is further reflected in adherence to work standards, which serve as benchmarks to evaluate whether tasks have been carried out properly in terms of quality, quantity, and overall accomplishment. Work standards establish expectations that guide employees in achieving consistent and measurable outcomes, thereby ensuring that organizational performance aligns with predetermined goals.

Employee Performance

Sulistyowati and Auliya (2022) state that employee performance represents the implementation of tasks performed individually or collectively, in accordance with their roles, authority, and responsibilities, with the aim of supporting the achievement of organizational objectives. Similarly, Adhari (2020, p. 77) explains that performance is a manifestation of the execution of functions or work within a certain period, which simultaneously reflects both the quality and quantity of work outcomes. Based on these perspectives, employee performance can be defined as the result of work carried out to achieve organizational goals, in which each employee is expected to perform tasks in line with their roles, responsibilities, and authority. In line with this, Silaen (2020, p. 2) emphasizes that employee performance reflects the fulfillment of duties consistent with assigned responsibilities, as well as the quality of the output achieved.

Furthermore, Silaen (2021, p. 6) identifies five main indicators for assessing employee performance, namely quality of work, quantity, timeliness, efficiency, and engagement. Quality of work relates to the ability, skills, and evaluation of employees regarding the outcomes they produce, while quantity emphasizes the volume of output generated within a specific time frame. Timeliness reflects the capacity of employees to complete tasks according to schedule and manage their time effectively. Efficiency, in this context, refers to the optimization of work results and the utilization of available resources such as labor, finances, and raw materials. Lastly, engagement measures the degree to which employees fulfill their responsibilities and demonstrate commitment to the organization.

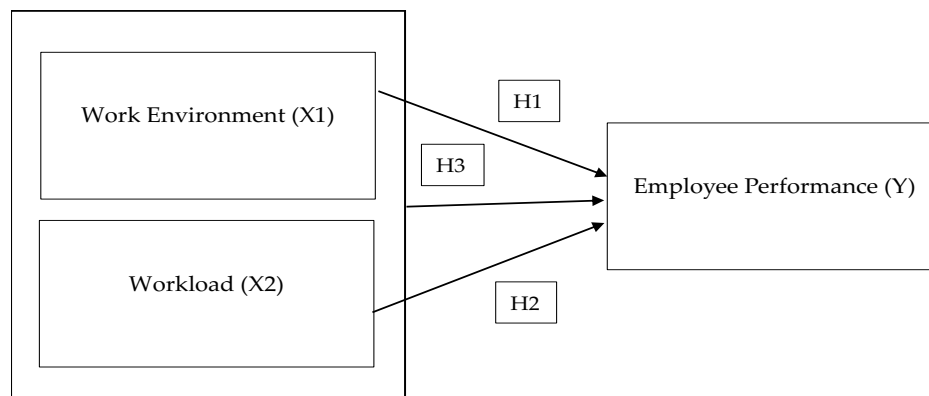


Figure 1. Conceptual Framework

Based on this theoretical framework, the conceptual model of the study assumes that both the work environment and workload influence employee performance. Accordingly, two hypotheses are proposed: H1, which posits that the work environment has an effect on employee performance, and H2, which posits that workload has an effect on employee performance.

3. Research Methods

In this study, the author employed a quantitative approach to examine the extent to which the independent variables namely work environment and workload affect the dependent variable, which is the performance of Generation Z employees (Ricky Y. Setiawan, 2024). The quantitative method relies on numerical data as a measurement tool to describe variables and the relationships between them. Data were collected through large-scale observations and subsequently summarized systematically with the support of specially designed research instruments.

The quantitative approach in this research focuses on analyzing phenomena by processing data obtained through computer-based statistical methods. All analytical procedures were conducted using IBM SPSS software version 25 on the Windows operating system.

Sample selection in this study employed the Lemeshow formula to determine the required sample size. This method was chosen because the total population of employed Generation Z individuals was unknown. When the population size (N) is not known, the Lemeshow formula is applied. The purpose of this formula is to determine an appropriate sample size for an unknown population. The following is the Lemeshow formula:

$$n = \frac{Z^2 \times P \times (1 - P)}{d^2} = \frac{(1.96)^2 \times 0.5 \times (1 - 0.5)}{(0.1)^2} = \frac{0.9604}{0.01} = 96.04$$

Description:

n = Sample size required

Z = Z-score at 95% confidence level (1.96)

P = Maximum estimated proportion: 0.5

d = Alpha (0.1) or sampling error used: 10%

Based on the formula, the calculated sample size was 96.4, which the author rounded up to 100 respondents. Therefore, the final sample consisted of 100 Generation Z employees.

4. Result and Discussion

Table 1. Results of Descriptive Test

| Descriptive Statistic | N | Min | Max | Mean | Std. Dev. |
|-----------------------|-----|-----|-----|-------|-----------|
| Work Environment | 100 | 32 | 40 | 36.08 | 1.450 |
| Workload | 100 | 34 | 44 | 40.16 | 1.718 |
| Employee Performance | 100 | 44 | 55 | 49.52 | 1.855 |
| Valid N | 100 | | | | |

(Source: Processed by the author, 2025)

Based on the results presented in the table, it can be observed that the responses of 100 participants produced values for variable X1 (Work Environment) with a minimum score of 32 and a maximum score of 40. The mean value obtained was 36.08 with a standard deviation of 1.450. Meanwhile, variable X2 (Workload) recorded the lowest value of 34 and the highest of 44, with a mean of 40.16 and a standard deviation of 1.718. For variable Y (Employee Performance), the results showed a minimum score of 44 and a maximum of 55, with a mean value of 49.52 and a standard deviation of 1.855.

Table 2. Results of Partial Test (T-Test)

| Variable | N | T Table | T Calculated | Sig. |
|------------------|-----|---------|--------------|------|
| Work Environment | 100 | 1.66023 | 4.432 | .000 |
| Workload | 100 | 1.66023 | -3.723 | .000 |

(Source: Processed by the author, 2025)

Based on the analysis of the t-test for variable X1 (Work Environment), the calculated t-value was 4.432, which exceeded the critical t-table value of 1.66. The significance value obtained was 0.000, which is less than 0.05. This indicates that the work environment has a significant influence on employee performance. Thus, the more conducive the work environment, the higher the motivation and productivity of employees in completing their tasks.

Conversely, the results for variable X2 (Workload) show that the calculated t-value of -3.723 is smaller than the t-table value of -1.66, with a significance level of $0.000 < 0.05$. This finding demonstrates that excessive workload can have a negative effect on employee performance.

Table 3. Results of Simultaneous Test (F-Test)

| F Table | F Calculated | Sig. |
|---------|--------------|------|
| 3.09 | 13.230 | .000 |

(Source: Processed by the author, 2025)

Based on the F-test results, the calculated F-value was 13.23, which exceeded the F-table value of 3.09. This finding indicates that both variable X1 (Work Environment) and variable X2 (Workload) collectively influence variable Y (Employee Performance). In other words, the combination of work environment quality and workload level affects the degree of employee performance outcomes.

The Influence of Work Environment on Employee Performance

In this study, the author employed SPSS version 25 to perform the t-test in order to examine the influence of the work environment variable on employee performance. Based on the results presented in Table 2, the calculated t-value of 4.432 was greater than the critical t-table value of 1.66023, with a significance level of $0.00 < 0.05$. This indicates that variable X1 (Work Environment) has a positive effect on variable Y (Employee Performance). Therefore, hypothesis H1 is accepted. H1 implies that the work environment significantly influences the performance of Generation Z employees.

The Influence of Workload on Employee Performance

Based on the results of the t-test, the obtained significance value was $0.00 < 0.05$, with a calculated t-value of -3.723, which is greater than the critical t-table value of -1.66023, as shown in Table 2. This finding demonstrates that variable X2 (Workload) has a significant negative effect on variable Y (Employee Performance). Thus, the second hypothesis (H2) is accepted. H2 implies that workload significantly affects the performance of Generation Z employees.

The Influence of Work Environment and Workload on Employee Performance

For testing the third hypothesis (H3), the author utilized the SPSS version 25 F-test to evaluate the combined influence of the work environment and workload on employee performance. The analysis results indicated a significance value of $0.00 < 0.05$ and an F-value of 13.230, which was higher than the critical F-table value of 3.90, as presented in Table 3. These findings suggest that variables X1 (Work Environment) and X2 (Workload) jointly have a positive and significant effect on variable Y (Employee Performance). Therefore, H3 is accepted, meaning that the work environment and workload together significantly influence the performance of Generation Z employees.

5. Conclusion

Based on the theoretical explanations and research findings presented regarding the influence of work environment and workload on employee performance, particularly among Generation Z employees, the following conclusions can be drawn.

The analysis results indicate that the work environment has a positive influence on employee performance, as evidenced by a significance value of $0.00 < 0.05$ with a t-count (X1) of 4.432, which is greater than the t-table value of 1.66023. This finding implies that employee performance can be improved when companies pay attention to aspects of the work environment, such as air conditioning quality, air circulation, color selection, and the availability of adequate facilities. By creating a comfortable workplace, employees will feel more at ease, which in turn enhances their performance.

Workload has a significant negative effect on employee performance, as shown by the t-test significance value of $0.000 < 0.05$ and the t-count value (-3.723), which is less than the t-table value (-1.66023). This means that when the workload of Generation Z employees increases, their performance tends to decrease. Therefore, companies need to carefully manage employee workloads, including task targets, performance assessments, and task complexity, to enhance employee performance and ensure that work quality improves in line with achieving organizational goals.

Collectively, the work environment and workload have a significant positive influence on employee performance. The simultaneous test results show a significance value of $0.00 < 0.05$, with an F-count of 13.23 greater than the F-table value of 3.09. This indicates that companies must consider both the work environment and workload to create a comfortable and supportive atmosphere for employees. At the same time, organizations should regulate the workload assigned to employees so that they can accomplish their tasks effectively. Furthermore, by providing appropriately challenging tasks, companies can create opportunities for employees to grow, learn, and remain motivated, while fostering resilience and perseverance in the workplace.

6. Suggestion

The results of this study can serve as both a reference and an additional source of information in the future regarding the extent to which workload and workplace conditions influence employee performance, particularly among Generation Z.

For future research on similar topics, it is recommended to consider the inclusion of additional variables in the research model. Moreover, increasing the sample size is necessary to obtain more accurate findings and provide a clearer picture of the issues under investigation. Future researchers are also advised to expand the number of questions for each indicator in the questionnaire to ensure that the data collected is more in-depth and comprehensive.

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